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ABSTRACT

Herein are discussed descriptive findings from the educational literature on the question of what variables appear important in changing traditional in-service training procedures. The question of the content versus the process of in-service training, important problems in in-service training programs, and implications of the important problems are also discussed. Educational research bearing on changes in in-service training programs and those bearing on organizational innovation in education and business are also presented. (Author)

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TO: BUREAU OF EDUCATIONAL PERSONNEL DEVELOPMENT
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FROM: FRANCIS THOMAS SOBOL

SUBJECT: ORDER NUMBER 0-71-3342: A REVIEW PAPER ON THE TOPIC--

"WHAT VARIABLES APPEAR IMPORTANT IN CHANGING TRADITIONAL INSERVICE TRAINING PROCEDURES."

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What variables appear important in changing traditional inservice training

I. Introduction

When the term "variables" is used, a reader or reviewer assumes that research is involved in the definition of that term. Unfortunately, there is little or no educational research bearing on the subject of this review. The reviewer was to search the educational literature and suggest those variables which might be important for further work in the area of changing inservice training programs. The net result of this search is a proposal that the topic be defined more specifically and that systematic research be conducted to document with valid and reliable data the variables which do influence changes in inservice programs. Such documentation does not now exists. Ideas, proposals, needs, and suggested changes exist, but they all lack supporting data. In order to review the educational literature on this topic I have rephrased the question:

Given traditional inservice teacher training programs composed mainly of information gathering activities such as attending workshops, reading curriculum bulletins, attending professional meetings, discussions with other teachers, taking professional courses, or reading professional journals, how do school systems move to an inservice training program which adds information utilization, practice, and feedback to its already existing information gathering activities?

The following review will share with the reader the answers educators have given to this question. These answers take the form of descriptions or prescriptions of the problems and suggested solutions. There is little supporting data for these prescriptions. They may serve as the content for a research program on this topic. After the consideration of these findings, I will review some of the ideas, data, and suggestions on organizational innovation in order to show how: (1) they demonstrate that education is not alone among organizations in failing to research the implementation of innovations, (2) they describe some of the failings from existing research on organizational innovation which education should avoid, and (3) coupled with the ideas from educational thinkers they suggest areas for future research on the initiation and implementation of organizational innovations such as changes in inservice training programs.

II. Descriptive Findings from Educational Literature:

A. Content versus Process of Inservice Training.

There is practically no research on the HOW or the WHY of changing inservice teacher training programs. Rather, all the research reports that do exist deal with the WHAT of newer approaches to inservice teacher training, e.g., inservice training based on: Interaction Analysis, Microteaching, Technical Skills of Teaching, Simulation and Games, Team Teaching, Individualized study, Programmed Instruction, Flexible Scheduling. See Frye, 1967; E. R. Stanley, 1967; Green, 1967; Bondi, 1968; Gellman, 1968; D. P. Brown; 1968; Vickery, 1968; Esrig, 1968; Stanley, 1969;

Kaslow, 1969; Cantrell, 1969; Thompson, 1969; Shoudel, 1969; Stevens, 1969; James, 1969; Gleason, 1969; Bigelow, 1969; Adams, 1970; Richardson, 1970; Spencer, 1970; Zoch, 1970; Wolfe, 1970; Staley, 1970; Mortenson, 1970. Some of these studies refer directly to inservice training while others refer to preservice training. The latter were reviewed with the hope that they might offer some process variables which would be useful for explaining inservice training. This hope was not rewarded.

The above list of studies on training content could be extended a great deal. But the reviewer felt it unnecessary to continue such a search because it was apparent that school districts and schools of education have limited their research to the CONTENT of inservice teacher training rather than study the PROCESS by which they accept, revise, or change altogether their inservice programs.

B. Important Problems in Inservice Training Programs:

What we have at this point in time is a great deal of description and prescription of what should be. I have found at least eleven "important" problems in current inservice teacher training programs. They are:

1. Teachers should be involved in planning stages of inservice programs: See Dale, 1964; NEA, 1967; Johnson, 1967; Goulet, 1967.

2. Extra time should be provided for inservice programs rather than make teachers use weekends or night courses: See Roberts, 1964; NEA, 1967; Fischer, 1971; Paterson, 1971.

3. Teachers should be helped to understand how they actually

interact with students in the classroom: See Goulet, 1967; Flanders, 1968; Branson and Nearing, 1969; Psencils, 1969; Borg et al., 1970; Fischer, 1971.

4. There is a necessity for making teachers aware of their own need for continual education in order to maximize their performance: See Fowler, 1960; Manth, 1962; Childress, 1965; Costin and Kerr, 1966; Fischer, 1971.

5. There is a necessity for administrators to encourage and reward teachers for participating in inservice training programs: See Dale, 1964; Roberts, 1964; and Dionne, 1966.

6. There is a necessity to encourage professionalism and confidence in teacher training programs: See references, Dale, 1964; Johnson, 1967.

7. There should be a continuum of training starting with college courses and moving out into the local schools rather than limit training to preservice courses: See McCreary, 1960; Psencils, 1969; and Bush, 1971.

8. Schools should take more responsibility for inservice training by using master teachers to both help encourage teacher growth and to help train those teachers who want to grow. See Hurwitz, 1966; Dionne, 1967; Goulet, 1967; Johnson, 1967; Allen, 1971; and Fischer, 1971.

9. Teacher pay increases should evolve from classroom performance rather than the number of inservice credits. This would encourage performance-based inservice courses as opposed to information gathering courses. See Roberts,1964; Allen, 1971; and Fischer, 1971.

10. There should be more flexibility in inservice programs to allow individuals with certain needs to get training for their needs rather than force them into mere group information sessions. See NEA, 1967; Allen, 1971; and Patterson, 1971.

11. Inservice programs must be made more relevant to actual in-class problems of teachers. See Mauth, 1962; Johnson, 1967; Goulet, 1967; Patterson, 1971.

C. Implications of the 11 "Important" Problems:

Overlooking (for the moment) the lack of data to support or define these problems, we can see that there are several questions which suggest variables that could influence a change from a traditional inservice program to a more innovative program:

1. Are the schools and their teachers aware of newer teaching patterns or curriculum packages which require different inservice programs?

2. How clearly do the schools and their teachers understand the learning needs of their students? Such understanding may require new training programs for teachers to meet these needs.

3. How clearly do the schools and their teachers see the need for new teaching patterns which require inservice programs?

4. Does the school create an environment that supports the teachers' work in undertaking a demanding performance-based inservice program?

5. Does the school provide the resources necessary for adequately implementing a new inservice training program?

6. Does the school provide the resources necessary for

adequately implementing the curriculum required by the new in-service training? For example, if the teachers learn to use Flanders' Interaction Analysis, does the school allow for more discussion time in classroom schedules? If the teachers learn inquiry methods in the physical or social sciences, does the school provide the materials and time for teaching those subjects in an inquiry fashion?

III. Educational Research Bearing on Changes in Inservice Training Programs

Up to this point we have reviewed the hunches of educators concerning the nature of inservice training programs. What follows are abstracts from four dissertation studies which used questionnaire research to find out what teachers THOUGHT in-service training programs should include. Many of these points support the educational prescriptions given in sections I. & II.

A. A Study of Teachers' Perceptions of an In-Service Program in Three Southern Maryland Counties. I.S. Turner, unpublished dissertation, George Washington University, 1970.

The findings from this study have produced the following conclusions:

1. There is no single format for in-service education that is effective for all teachers; however, there are elements which should be incorporated into all programs if teachers are to perceive them as effective. Objectives must be closely related to the reality of the classroom; topics should be limited to those which can be extensively studied during the workshop; skills and

information presented should be those which teachers can use immediately in their classrooms; and workshops should be concerned with resolving the kinds of problems which teachers encounter daily.

2. The climate in which in-service is conducted is a major ingredient in teachers' perceptions of effective in-service education. It must be a relaxed, nonthreatening atmosphere in which they can question and express opinions, try new teaching behaviors, share ideas with others, change the direction of the activities when needed, and evaluate progress daily.

3. Teachers must be actively involved in the learning process--not passive listeners.

4. Teachers want to be shown, through demonstrations with children, what to do and how, to be given an opportunity to practice under the guidance of an expert consultant, and to be provided with follow-up assistance in their classrooms.

5. Teachers will identify factors which contribute to satisfaction with in-service education.

6. Teachers need assistance in identifying specific teaching weaknesses.

From the findings and conclusions, recommendations were made for the following:

1. Delegating planning responsibilities to teachers;

2. Workshops designed for maximum sharing of ideas, group self-awareness experiences, and training in analyzing teacher behavior;

3. Follow-up as an integral part of all in-service activities; and

4. Future research.

B. Inservice Experiences for Secondary Social Studies Teachers in Selected Public School Systems in Tennessee. J. P. Atkins, unpublished dissertation, University of Tennessee, 1968.

The following recommendations were made as a result of this study:

1. The purposes of local inservice programs should be clarified to all participants.

2. Comprehensive inservice program evaluations should be commonplace in all school systems in Tennessee.

3. Inservice social studies education should not be viewed as a separate, out-of-school concern.

4. Improved means of communication should be devised within each school system.

5. A variety of self-assessment techniques should be employed to focus some inservice activities upon improving teacher behavior.

6. Inservice programs should be characterized by social studies continuity.

7. A variety of program choices should characterize inservice social studies education.

8. Orientation programs for new social studies teachers should be improved.

9. Teacher visitations to other social studies programs should be utilized more effectively.

10. Participation in NDEA-ESEA institutes should be encouraged.

11. The inservice sabbatical leave should be incorporated into social studies programs.

12. More emphasis should be placed upon incorporating materials and methods of the social sciences for classroom use.

13. More programs should stimulate the teacher to become more selective of social studies content, and to deal imaginatively with this content.

C. A Survey, Analysis, and Proposed Program of In-Service Education in Selected School Districts in Six Midwestern States. E. B. Bigelow, unpublished dissertation, University of South Dakota, 1969.

Findings

1. Supervision of instruction and curriculum planning are being combined into one unit, the in-service program.

2. Many schools are implementing planned in-service programs executed on a year-around basis.

3. A need exists for more school time in which to plan and implement an in-service program.

4. There is a tendency for school systems to provide the teachers with an in-service curriculum.

5. The use of college consultants is becoming more prevalent in the public schools.

6. The building principal has a great responsibility in the in-service program.

7. There is a need for more systematic and objective evaluations of in-service education programs.

8. Professional growth for teachers is entering a new era

and teacher involvement is becoming an important part of the professional growth program.

9. Money budgeted for in-service programs was far below that recommended in the literature.

10. Nearly 90 per cent of the coordinators spent less than half-time coordinating the in-inservice program.

11. A written philosophy is a very important aspect of the in-service education program.

Recommendations

1. A full-time coordinator who would direct supervision of instruction, curriculum planning, and the entire in-service program should be employed.

2. The school district, in assuming its responsibility, should budget between $50 and $150 per teacher for in-service education.

3. Each individual school within a district should initiate its own professional growth program as a coordinated part of the total in-service education program.

4. Salary increments should be given for a specified amount of in-service growth.

5. Ties with a college or university should be made to count in-service credits toward a fifth-year degree.

6. Principles and objectives should be clearly defined to help establish guidelines for the in-service program.

D. Evaluation of a Junior High School In-Service Program Designed to Help Teachers Provide for Pupils' Individual

Differences in Reading Abilities. M. J. James, unpublished dissertation, University of Miami, 1969.

Conclusions: The investigator drew the following conclusions, generalizable to the junior high school teachers involved in the study:

1. Continuous individualized in-service training tends to be effective in improving junior high school teachers' sensitivities, understandings, abilities, and attitudes about those aspects of instruction for which they can perceive support in their institutional setting.

2. Continuous in-service training which utilizes the process of problem-identification and -solution in connection with recommended instructional practices tends to have a cumulative positive effect in improving teachers' perceptions about their own and their pupils' needs related to the practices.

3. The implementation of recommended practices at the junior high school level appears to depend more on what the individual teachers see as implications of the recommendations than on the practices themselves.

4. Junior high school subject-matter teachers who study basic reading skill-building principles tend to have difficulty in learning how to apply the principles without extensive practice in incorporating the teaching of the principles into their on-going instructional program.

5. Improvement of junior high school teachers' abilities to teach reading skills depends in part on the teachers' understandings and abilities to group pupils within their classes and to incorporate skill-building techniques into their lesson plans.

We can see from these findings that school teachers agree with the educational theorists as to the components or elements which constitute an effective inservice training program. The problem is that these are just suggestions about what whould be. Nowhere do the writers tell us HOW to implement their prescriptions. At best we can conclude that teachers, administrators, and educational consultants should be involved. We need to turn our attention from these descriptions to the research findings from studies of organizational innovation in educational and business settings in order to evaluate the possible effectiveness of these variables in changing inservice programs.

IV. Research Findings Bearing on Organizational Innovation in Education and Business

A. Educational Data on Organizational Innovation

We have some research data which demonstrates the complex interaction which exists among the six implication questions listed earlier. This interaction is among knowledge of the innovations, a sense of need for innovations in a school, development of an inservice program to prepare for instructional innovations, and implementation of the instructional innovations.

It looks as though it will not be enough to answer yes to the six implication questions. The possibility of implementing a new inservice program may stand or fall on the teachers' understanding of the program and its possibilities for bringing instructional changes into the school. This poses the whole

question of changes in existing inservice programs within the larger context of organizational innovation. Gross, Giacquinta, and Bernstein (1971) demonstrate several additional variables which can nurture or kill an innovative inservice program. They identify four barriers to an organizational innovation dependent on a new inservice training program. Their proposed instructional innovations failed because:

1. Teachers lacked a clear understanding about the new role they were to play in the instructional process. They did not have a clear idea of the performances expected of them.

2. Teachers lacked the necessary skills and knowledge to carry out the new instructional package.

3. Teachers lacked the required materials and equipment to implement the new programs.

4. The organizational arrangement of the school in the form of school schedules, assignment of teachers, etc. was incompatible with the innovative program.

These findings suggest that a school must not only answer yes to the six implementation questions, but it must also organize to provide the resources for implementing an instructional innovation. If this is not done, then there may be no motivating reason for teacher involvement in a changing inservice training program. In effect, it seems they would have no reason for change since the program for which they are preparing cannot be implemented.

So far, we have considered the descriptive and prescriptive suggestions of educational professionals regarding their "intuitions"

about the variables important for changing inservice training programs. The Gross, et al., study suggests that some of these variables do influence the success of implementing instructional innovations in organizations. Furthermore, the four barriers they discuss seem to support prescriptive hunches or questions of educators.

B. Non-educational Data on Organizational Innovation

1. Creating a need for new programs.

Unfortunately, the descriptive suggestions presented so far run into trouble when we consider the research data gathered by psychologists and sociologists as they study organizational innovation. Gross, Giacquinta, and Bernstein summarize the positive results from these studies in terms of four variables which MAY include organizational changes such as implementing a new inservice training program. I stress the term "may" since the authors conclude that there is very little systematic research data available in this area. From studies of organizational and managerial changes in business the authors suggest that a sense of need for organizational innovations MAY BE ASSOCIATED with (1) pressure on the organization from outside forces, (2) internal tensions or needs within the organization itself, (3) a previous atmosphere of change within the organization, (4) the use of an outside expert who has a positive image with the organization members. See Hovland and Weiss, 1951; Tannenbaum, 1956; Burns and Stalker, 1961; Mann and Neff, 1961; Gellerman, 1963; Greiner, 1967.

In summary, these studies "hint" at three or four global variables which might influence changes in inservice training programs. What is needed is some systematic study of the variables as they apply directly to schools trying to develop, implement, and evaluate changes in their inservice teacher training programs. We will leave the area of creating a felt-need for innovations to move to the area of initiating innovations. Here we find the same situations as in the other areas already covered in this review: there are some hunches, some suggestions, some prescription, and a little data. What exists is more a need for systematic research than a possibility to use present data.

2. The Initiation of Organizational Innovations

In essence, the topic of this paper seems to be centrally concerned with this particular issue: the initiation of innovations. In the field of education in general and inservice education in particular, there is little systematic research on the question. Psychologists and sociologists of organizations other than education have done some research on the question. Educators as I indicated in section one of this paper, have limited themselves to describing what should be rather than researching what is. Gross et al., summarizes both the research studies and descriptive suggestions in the following manner:

Innovations in organizations seem to depend on: (1) The use of change agents--persons who explain the what, the how, and the why of proposed innovations. (2) The participation of organization members and the change agent in discussions and decision making

concerning the innovations. (3) The development of some kind of strategy by organization members and the change agent for implementation of the innovation. See Coch-French, 1948; Morse-Reimer, 1955; Lippitt et al., 1958; Mann-Hoffman, 1960; Benne and Birnbaum, 1960, French, et al., 1960; Agnew and Hsu, 1960; Brickell, 1961; Bishop, 1961; Bennis et al., 1961; Heatheres, 1963, 1965, and 1967; Goodlad and Anderson, 1963; Anderson, 1964; Rocky Mountain, 1964; Dentler, 1964; Oliver, 1965; Leavitt, 1965; Dufey, 1966; Peterson, 1966; Wigren, 1967; Argyle, 1967; Byerly and Rankin, 1967; Trump, 1967; Gale, 1967; Bennis, 1966; and Herzberg, Mausner, and Snyderman, 1959; Buchanan, 1967.

This looks like an impressive list of studies and "think-pieces," but the data from them do not substantially define or verify these initiation variables. Gross, et al., summarize the field at this point in time as follows:

> There is a paucity of research evidence to support these propositions (1,2,3, & 4 above.) There is even less evidence to support the propositions that participation is positively related to variables such as the clarity of an innovation, the morale of the staff, and its commitment to an innovation and that these variables are positively associated with implementation. Also, it deserves note that the widely held assumption that most organization members are resistant to change is, to date, far more rhetorical than demonstrable. Moreover, the assertion that a major change initiated by management creates or exacerbates resistance to change among its subordinates has been buttressed with little evidence. p. 29.

In summary, then, we have four suggested variables for initiating a changes in organizations. But these are only suggestions. A review of the supporting studies and their analyses shows the need for a systematic research program which controls these variables as they are applied in studies of educational changes in inservice teacher training programs. Such studies call for the joint efforts of educational trainers and organizational researchers from the fields of psychology, sociology, and business.

3. Implementation of Organizational Innovations

A review of the studies in this area lead to the following conclusions: (1) there has been little concern for testing or generating hypotheses about factors influencing the degree of implementation of an organizational innovation. (2) The data used to isolate conditions having an impact on implementation are usually obtained only from the perspective of the initiator; the point of view of organizational members who must make the changes specified by the innovation are largely ignored. (3) The documentation of the degree of implementation of the innovation is poor; careful measurement via the use of systematic observations is not generally made.

In general, the studies or reports which discuss the implementation of innovation suffer from at least one of these flaws. See Watson and Westley, 1958; Parloff, 1960; Fowler, 1956; Brickell, 1961;Fantini and Weinstein, 1963;Abbott, 1965; Lippitt, Benne, & Havelock, 1966;Brown, 1966; Peterson, 1966;

Greiner, 1965; Carlson, 1965; Byerly and Rankin, 1967;Ginzberg and Reilley, 1957;Marland, 1963;Miller, 1967; Jung, 1967; Radcliffe, 1967; Glogau and Fessell, 1967; Childs, 1966;Dufay, 1966; Barnes, 1967; Wigran, 1967; Cale, 1967; and Wilkie, 1967.

Given these flaws we can only outline the possible variables which might be researched in a systematic study of inservice innovations. Those most often studied are: (1) external and internal support for change, (2) whether or not there is adequate funding, (3) the adequacy of the plans for meeting both the organization members' needs and the organizational problem under consideration, (4) member acceptance of the need for change, (5) having old members of the organization remain for new tasks, (6) the presence of a change agent to give needed support and advice. These might be variables built into a controlled, systematic study of inservice innovation. As of now, they are merely suggestive of potential variables. As stated earlier there are too many flaws in earlier studies using these variables to be able to state definitively how important any one of them is.

V. Summary, Conclusion, and Review

In this section I will attempt to draw together the important questions, problems, issues, and data that have been scattered throughout this review. These facets will be presented in an outline form structured by general topics which might be of concern in the change from a traditional inservice program to an innovative program.

A. The NEED for innovation: recognizing, developing, guiding,

and using.

1. Teachers should be helped to understand how they interact with students in the classroom, p. 3, #3.

2. There is a necessity for making teachers aware of their own need for continual education in order to maximize their performance, p. 4, #4.

3. There should be a continuum of training starting with college courses and moving out into the local schools rather than limit training to preservice courses, p. 4, #7.

4. Teacher pay increases should evolve from classroom performance rather than the number of inservice credits. This would encourage performance-based inservice courses as opposed to information gathering courses, p. 4, #7.

5. There should be more flexibility in inservice programs to allow individuals with certain needs to get training for their needs rather than force them into mere group information sessions, p. 5, #10.

6. Inservice programs must be made more relevant to actual in-class problems of teachers, p. 5, #11.

7. Are the schools and their teachers aware of newer teaching patterns or curriculum packages which require different inservice training patterns? p.5, #C.1.

8. How clearly do the schools and their teachers understand the learning needs of their students? p.5, #C.2.

9. How clearly do the schools and their teachers see the need for new teaching patterns which require new inservice training programs? p.5, #C.3.

10. There is no single format for inservice education that is effective for all teachers; however, there are elements which should be incorporated into all programs if teachers are to perceive them as effective. Objectives must be closely related to the reality of the classroom; topics should be limited to those which can be extensively studied during the workshop; skills and information presented should be those which teachers can use immediately in their classrooms; and workshops should be concerned with resolving the kinds of problems which teachers encounter daily. p.6-7, #1.

11. Teachers will identify factors which contribute to satisfaction with inservice education. p.7, #5.

12. Teachers need assistance in identifying specific teaching weaknesses. p.7, #6.

13. The purposes of local inservice programs should be clarified for all participants. p.8, #1.

14. A need exists for more school time in which to plan and implement an inservice program. p.9, #3.

15. There is a need for more systematic and objective evaluations of inservice programs. p.9, #7.

16. Professional growth for teachers is entering a new era and teacher growth is becoming an important part of professional growth programs. p. 9-10, #8.

17. Coordinators of inservice training programs must spend more time at that job. p.10, #10.

18. Each individual school within a district should initiate its own professional growth program as a coordinated part

of the total inservice education program. p.10, #3.

19. Salary increments should be given for a specified amount of inservice growth. p.10, #4.

20. Teachers lacked a clear understanding about the new role they were to play in the instructional process. They did not have a clear idea of the performance expected of them. p.13, #1.

21. Teachers lacked the necessary skills and knowledge to carry out the new instructional package. p.13, #2.

22. Need for change may be developed by pressure on the organization from outside forces. p.14, #1.

23. Need for change may be developed by internal tensions or needs within the organization,itself. p.14, #2.

24. Need for change may be developed by a previously existing atmosphere of change within the organization. p.14, #3.

25. Need for change may be developed by the use of an outside expert who has a positive image with organization members. p.14, #4.

B. Planning and Organization for Innovation

1. Teachers should be involved in planning stages of inservice programs. p.3, #1.

2. Extra time should be provided from inservice programs rather than make teachers use weekends or night courses. p.3, #2.

3. Schools should take more responsibility for inservice training by using master teachers to both help encourage teacher growth and to help train those teachers who want to grow. p.4,#8.

4. Does the school create an environment that supports the teachers' work in undertaking a demanding performance-based inservice program? p.5, #4.

5.Does the school provide the resources necessary for adequately implementing a new inservice training program? p.5, #5.

6. Does the school provide the resources necessary for adequately implementing the curriculum required by the new in-service program? p.5-6, #6.

7. There is no single format for inservice education that is effective for all teachers; however, there are elements which should be incorporated into all programs if teachers are to perceive them as effective. p.6, #1.

8. The climate in which inservice is conducted is a major ingredient in teachers' perceptions of effective inservice education. It must be in a relaxed, nonthreatening atmosphere in which they can question and express opinions, try new teaching behaviors, share ideas with others, change the direction of the activities when needed, and evaluate progress daily. p.7, #2.

9. Teachers will identify factors which contribute to satisfaction with inservice education. p.7, #3.

10. Teachers want to be shown, thru demonstrations with children, what to do and how, to be given an opportunity to practice under the guidance of an expert consultant, and to be provided with follow-up assistance in their classrooms. p.7, #4.

11. Delegate planning responsibilities to teachers. p.7, #1.

12. Workshops designed for maximum sharing of ideas, group self-awareness experiences, and training in analysis of teaching should be provided. p.7, #2.

13. Inservice training should have as an integral part of its program a follow-up of the teachers in their classrooms. p.7, #3.

14. The purpose of local inservice programs should be clarified to all participants. p.8, #1.

15. Comprehensive inservice program evaluations should be commonplace in all programs. p.8, #2.

16. Inservice programs for special subject areas should not be viewed as a separate,out-of-school concern. p.8, #3.

17. Improved school communication should be part of an in-service program. p.8, #4.

18. A variety of self-assessment techniques should be employed to focus some inservice activities upon improving teaching behavior. p.8, #5.

19. A variety of program choices should characterize in-service training. p.8, #7.

20. Orientation programs should be used as part of inservice education. p.8, #8.

21. Participation in locally and federally funded institutes should be encouraged as part of an inservice program. p.8, #10.

22. In service sabbatical leaves should be incorporated into inservice programs. p.9, #11.

23. More emphasis should be placed upon incorporating materials and methods for special subject areas into classroom use. p.9, #12.

24. Programs should stimulate the teacher to become more selective in choice and use of teaching content. p.9, #13.

25. A need exists for more school time in which to plan and implement an inservice program. p.9, #C.3.

26. The use of college consultants should be encouraged. p.9, #C.5.

27. There is a need to build in more systematic and objective evaluations of inservice training programs. p.9, #C.7.

28. A written philosophy is a very important aspect of the inservice education program. p.10, #11.

29. A full-time coordinator should be employed to direct supervision of instruction, curriculum planning, and the entire inservice program. p.10, #1.

30. The school district should budget between $50 and $150 per teacher for inservice education. p.10, #2.

31. Ties with a college or university should be made to count as inservice credit for an application to a fifth-year degree. p.10, #5.

32. Principles and objectives should be clearly defined to help establish guidelines for the inservice program. p.10, #6.

33. The implementation of recommended practices at the junior high school level appears to depend more on what the individual teachers see as the implications of the recommendations rather than on the practices themselves. p.11, #3.

34. Teachers lacked the required materials and equipment to implement the new program. p.13, #3.

35. The organizational arrangement of the school in the form of school schedules, assignment of teachers, etc., was incompatible

with an innovative program. p.13, #4.

36. The need for innovative inservice programs can be stimulated by the use of an outside expert who has a positive image with the organization members. p.14, #4.

37. Innovations in organizations seem to depend on the use of change agents--persons who explain the what, the how, and the why of the proposed innovations. p.15, #1.

38. Innovations in organizations seem to depend on the participation of organization members and the change agent in discussions and decision-making concerning the innovation. p.15, #2.

39. Innovations in organizations seems to depend on the development of some kind of strategy by organization members and the change agent for implementation of the innovation. p.16, #3.

40. In order to know the effects of organizational innovation, there must be a concern for generating and testing pypotheses about the factors which influence the degree of implementation of the innovation. p.17, #1.

41. In order to know the effects of organizational innovation, data must be gathered from organization members concerning the conditions which have an impact on the implementation. p.17, #2.

42. In order to know the effects of organizational innovation, careful measurement must be made of the innovations thru the use of systematic, on-site observations. p.17, #3.

C. Administrative Support of Organizational Innovations such as Changing Inservice Programs and their costs.

1. Extra time should be provided for inservice programs rather than make teachers use weekends or night courses. p.3, #2.

2. There is a need for administrators to encourage and reward teachers for participating in inservice programs. p.4, #5.

3. Teacher pay increases should evolve from classroom performance rather than the number of inservice credits. p.4, #9.

4. Does the school create an environment that supports the teachers; work in undertaking a demanding performance-based inservice program? p.5, #4.

5. Does the school provide the resources necessary for adequately implementing a new inservice training program? p.5, #5.

6. Does the school provide the resources necessary for adequately implementing the curriculum required by the new inservice training program? p.5, #6.

7. Teacher visitations to other schools and programs should be utilized as part of an inservice training program. p.8, #9.

8. Inservice education should allow sabbatical leaves as part of the program. p.9, #11.

9. Schools should implement planned inservice programs on a year-around basis. p.9, #2.

10. A need exists for more school time in which to plan and implement an inservice program. p.9, #3.

11. The schools should use college consultants as part of the inservice program. p.9, #5.

12. The school principal should have greater responsibility

in the inservice program. p.9, #6.

13. Adequate money should be budgeted for inservice programs. p.10, #9.

14. Coordinators of inservice programs should spend more time at the job. p.10, #10.

15. A full-time coordinator should be employed who would direct supervision of instruction, curriculum planning, and the entire inservice program. p.10, #1.

16. The school districts should budget between $50 and $150 per teacher for inservice programs. p.10, #2.

17. Salary increments should be given for a specified amount of inservice growth. p.10, #4.

18. Teachers should not lack the required materials and equipment to implement new programs. p. 13, #3.

19. Organizational arrangements in the school should not be incompatible with the implementation of innovations, e.g., school schedules or patterns of teacher assignments. p. 13, #4.

20. The need for organizational innovations can be developed by administrative response to pressures from outside the organization. p.14, #1.

21. The need for organizational innovations can be developed by administrative use of internal tensions or needs. p.14, #2.

22. The need for organizational innovations can be developed by employing an outside expert to explain the what, how and why of the innovations to organizational members. This person must have a positive image with organization members.p.14, #4.

23. Initiation of organizational innovations depends on member participation in decision-making. p.15, #2.

24. Initiation of organizational innovation depends on the development of a strategy by members for the implementation of the innovation. p.16, #4.

25. Successful implementation of the innovation depends on administrative data gathering and analysis. p. 17, #1,2,&3.

26. Schools should take more responsibility for inservice training by using master teachers to both help encourage teacher growth and to help train those teachers who want to grow. p.4, #8.

27. Ties with a college or university should be made to count inservice credit toward a fifth-year degree. p.10, #5.

D. Rewards

1. Administrators shouls reward teachers for participating in inservice training programs. p.4, #5.

2. Teacher pay increases should evolve from classroom performance rather than the number of inservice credits. p.4, #9.

3. There should be more flexibility in inservice programs so that individuals can satisfy their own needs for improvement. p.5, #10.

4. The school should create an environment that supports the teachers' work in undertaking a demanding performance-based inservice program. p.5, #3.

5. The inservice program should be in a relaxed, non-threatening atmosphere in which teachers can question and express opinions, try new teaching behaviors, share ideas with

peers, change the direction of the activities when needed, and evaluate progress daily. p.7, #2.

6. Teachers should be allowed inservice sabbatical leaves as part of the inservice program. p.9, #11.

7. Salary increments should be given for a specified amount of inservice growth. p.10, #4.

8. Continuous individualized inservice training tends to be effective in improving junior high school teachers' sensitivities, understandings, abilities, and attitudes about those aspects of instruction for which they perceive support in their institutional setting. p.11, #1.

9. Continuous inservice training which utilizes the process of problem-identification and solution in connection with recommended instructional practices tends to have a cumulative positive effect in improving teachers' perceptions about their own and their pupils' needs related to those practices. p.11, #2.

E. Time

1. Teachers should be involved in planning stages of inservice programs. p.3, #1.

2. Extra time should be provided for inservice programs rather than make teachers use weekends or night courses. p.3, #2.

3. Teachers need to seek continual education in order to maximize their performance. p.4, #4.

4. There should be a continuum of training starting with college courses and moving out into the local school rather than limit training to preservice courses. p.4, #7.

5. Inservice programs should provide time for teachers to meet their own needs. p.5, #10.

6. There is no single format for inservice education that is effective for all teachers. There are several elements which can be incorporated into all programs to help teacher perceive them as effective. p.6, #1.

7. Teachers must be actively involved in the learning process--not passive listeners. p.7, #3.

8. Teachers want to be shown, thru demonstrations with children, what do do and how, to be given an opportunity to practice under the guidance of an expert consultant, and to be provided with follow-up assistance in their classrooms. p.7, #4.

9. Schools should implement planned inservice programs on a year-around basis. p.9, #2.

10. A need exists for more school time in which to plan and implement an inservice program. p.9, #3.

11. Ties with colleges and universities should be made in order to count inservice credits toward a fifth-year degree. p.10, #5.

12. Implementation of innovations in the schools depends on administrative arrangement of school schedules and teacher assignments so that the innovations can be used in the schools. p.13, #4.

F. Evaluation

1. Inservice programs must be made more relevant to actual in-class problems of teachers. p. 5, #11.

2. Classroom follow-up must be an integral part of an inservice training program. p.7, #2.

3. There is a need for more research on inservice training programs. p.7, #3.

4. A variety of self-assessment techniques should be employed to focus some inservice activities on improving teacher behavior. p. 8, #5.

5. There is a need from more systematic and objective evaluation in in-service education programs. p.9, #7.

6. Principles and objectives should be clearly defined to help establish evaluative guidelines for inservice training programs. p.10, #6.

7. In order to test the effectiveness of organizational innovations testable pypotheses should be developed, data should be gathered from members of the organization, and systematic, on-site observations should be made. p.17, #1,2,3.

G. Synopsis of Psychological and Sociological Factors ASSUMED to Influence Organizational Innovation.

1. A sense of need for organizational innovation may be fostered by:

   a) pressure on the organization from outside forces,
   b) a previous atmosphere of change within the organization,
   c) internal tensions or needs within the organization,
   d) the use of an outside expert who has a positive image with organization members. p.14.

2. Initiation of organizational innovation may depend on:

   a) the use of change agents--persons who explain the what, the how, and the why of the proposed innovation,
   b) participation of organization members and the change agent in discussions and decision-making concerning

the innovations,

c) the development of some kind of strategy by organization members and the chang e agent for implementation of the innovation. p.17.

3. Factors Studied Most Often in Organizational Innovation:

a) external and internal support for change,

b) whether or not there is adequate funding for change,

c) the adequacy of the plans for meeting both the organization members' needs and the organization problem under consideration,

d) member acceptance of the need for change,

e) having old members of the organization remain for new tasks,

f) the presence of a change agent to give needed support and advice. p. 18.

H. Problems with"Variables" ASSUMED to Influence Organizational Innovation:

1. There has been little concern for testing or generating hypotheses about factors influencing the degree of implementation of an organization. p.17, #1.

2. The data used to isolate conditions having an impact on implementation are usually obtained only from the perspective of the initiator; the point of view of organization members who must make the changes are largely ignored. p.17, #2.

3. The documentation of the degree of implementation of the innovation is poor; careful measurement via the use of systematic, on-site observation is not generally made. p.17, #3.

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